

## REMARKS

Applicants would like to thank the Examiner for assistance in correcting the mistaken substitutions and reissuing a new, non-final Office Action.

In the Office Action of April 9, 2007, Claims 1-29 were rejected as being anticipated by U.S. Patent No. 6,457,076 to Cheng et al. (hereinafter "Cheng"). Claim 23 was objected to as a result of a typographical error.

With this response, Claims 18-24 are canceled. Claims 1-17 and 25-29 are pending.

Pursuant to 37 C.F.R. § 1.111, and for the reasons set forth below, applicants respectfully request reconsideration and allowance of the pending claims. Prior to presenting the reasons applicants believe that the pending claims are in condition for allowance, a brief description of the disclosed subject matter, as well as the principal cited reference, Cheng, is presented. It should be appreciated, however, that the brief descriptions are presented to assist the Examiner in understanding the differences between the claimed subject matter and the cited reference, and should not be viewed as a limitation upon the claimed subject matter.

### Brief Descriptions

#### Disclosed Subject Matter

The disclosed subject matter is directed to a hierarchical system where an update service node can operate as a child update service node (i.e., servicing a set of client computers), as a parent update service node (i.e., servicing a set of child update service nodes), or both. The update service nodes are organized in a hierarchical manner stemming from a root update service node (which does not have a parent). The ability to scale up or down, as well as corresponding efficiencies in delivering software updates and maintaining greater control over particular network domains, is achieved when distribution of software updates is managed through a hierarchical structure of update service nodes, as recited in the claimed subject matter.

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While the disclosed update service nodes could be organized into a flat structure, as set forth in Cheng, where the root update service node acts as an immediate parent to all child update service nodes, the disclosed subject matter allows individualized implementations of a system to be configured according to immediate needs. This configurability is achieved as each update service node is configured to operate as a child update service node and as a parent update service node.

Cheng (U.S. Patent No. 6,457,076)

Cheng is directed to a system where client computers (viewed by the Office Action as the functional equivalent to update service nodes) interact with a service provider computer system (viewed by the Office Action as the functional equivalent of the root update service node) to obtain software update information - which is assumed to be available from software providers.

While Cheng discloses a service provider computer system providing client computers with access to software updates, Cheng fails to disclose a hierarchical organization of these elements, and particularly a hierarchical organization where at least one client computer operates as a "parent" computer in the hierarchy. Still further, Cheng fails to disclose that each client computer is "configured to operate as a parent update service node to another child update service node," as recited in the claimed subject matter. Instead, Cheng discloses client computers that do not interact with each other, but simply obtain update information from the service provider computer system in a flat organization as shown in Fig. 1.

**Claim Objection**

Claim 23 was objected to as depending from Claim 28. As the Examiner correctly surmised, this was a typographical error, and Claim 23 should have depended from Claim 18. However, as Claim 23 has been canceled, this objection is rendered moot.

## Claim Rejections

Claims 1-17 and 25-29 were rejected under 35 U.S.C. § 102(b) as being anticipated by Cheng. For the reasons discussed below, applicants respectfully traverse the rejections and submit that the claims are now in condition for allowance.

### Claim 1

Applicants submit that Cheng fails to disclose the following elements as now recited in Claim 1:

**each** of the plurality of child update service nodes is configured to operate as a parent update service node to another child update service node; and  
at least one child update service node of the plurality of child update service nodes is a parent update service node to another child update service node of the plurality of child update service nodes.

The Office Action apparently equates the root update service node to the service provider computer system from Cheng, and further apparently equates the child update service nodes to Cheng's client computers. While applicants disagree with this assertion, assuming this position, applicants point out that Cheng's client computers are not arranged such that a first client computer acts as a service provider computer to another client computer.

In addition to lacking the hierarchical structure recited in Claim 1, Cheng fails to disclose that each client computer is configured to operate as a parent update service to another client computer. More particularly, Cheng fails to disclose that **"each of the plurality of child update service nodes is configured to operate as a parent update service node to another child update service node."** Nothing in Cheng remotely suggests that each client computer is configured to operate both as a client computer and as a service provider computer system.

In view of the above, applicants respectfully submit that Cheng fails to disclose each and every element of Claim 1 as now amended. Accordingly, applicants respectfully request that the 35 U.S.C. § 102(b) rejection be withdrawn, and the claim allowed.

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### Claims 2-10

Claims 2-10 depend from independent Claim 1. As applicants submit that Claim 1 is in condition for allowance, applicants further submit that Claims 2-10 are also in condition for allowance, and request that the 35 U.S.C. § 102(b) rejection of these claims be withdrawn, and the claims allowed.

In addition to depending from Claim 1, many of Claims 2-10 include elements that further distinguish them from the cited reference, Cheng. Some of these claims are discussed below.

### Claim 3

Applicants submit that, assuming the rationale of the Office Action that child update service nodes are the functional equivalent of client computers, Cheng fails to disclose each element of Claim 3. In particular, applicants submit that Cheng fails to disclose:

**an update web service** through which the child update service node obtains software updates from its parent update service node over the communication network, and **through which the child update service node distributes software updates to its child update service nodes over the communication network;**

**an administration application programming interface (API)** through which an administrator, using an administration user interface, establishes rules for distributing software updates to its child update service nodes; and

**a child update module** for determining which software updates are available to be distributed to its child update service nodes according to the established rules.

As can be seen, each child update service node is configured with elements that are also found in parent update service nodes, including, in the first place, **"an update web service ... through which the child update service node distributes software updates to its child update service nodes over the communication network."** Nothing in Cheng discloses, teaches, or suggests that the client computers include the elements recited in Claim 3 for

distributing software updates to its client computers. Rather, with reference to Fig. 1 of Cheng, each client computer is configured simply as a client computer, and has no child client computer.

Similarly, Cheng fails to disclose that each client computer includes an administration API "through which an administrator ... establishes rules for distributing software updates to its child update service nodes." Again, applicants point out that Cheng is organized such that child computers are peers and do not demonstrate a parent/child relationship.

Still further, Cheng also fails to disclose that each client computer includes "a **child update module** for determining which software updates are available to be distributed to its child update service nodes according to the established rules." Cheng is organized such that child computers are peers and do not demonstrate a parent/child relationship, and therefore has no need for a child update module.

As can be seen, applicants submit that Cheng fails to disclose each element recited in Claim 3. For these additional reasons, applicants submit that Claim 3 is in condition for allowance, and request that the 35 U.S.C. § 102(b) rejection of this claim be withdrawn, and the claim allowed.

#### Independent Claim 11

In regard to Claim 11, applicants respectfully assert that Cheng fails to disclose the following elements of Claim 11. In particular, applicants note that, as amended, Claim 11 recites that the "update service node is organized in a hierarchy of a plurality of similarly configured update service nodes." As already suggested, applicants assert that the client computers described in Cheng are not organized in a hierarchy of client computers.

In addition to its failure to recite a hierarchy of client computers, while Cheng may disclose that its system includes a database holding information regarding software updates, Claim 11 recites that the update service node (being one of a plurality of similarly configured

update service nodes) includes an update store for storing software updates, an update web service "through which the update service node distributes software updates to child update service nodes in the hierarchy," an administration API for administering the distribution of software updates to child update service nodes, and a child update module "for determining which software updates are available to be distributed to its child update service nodes according to the established rules."

Applicants submit that Cheng fails to disclose each and every element of Claim 11. Accordingly, applicants submit that Claim 11 is in condition for allowance, and request that the 35 U.S.C. §102(b) rejection be withdrawn, and the claim allowed.

#### Claims 12-17

Claims 12-17 depend from independent Claim 11. Accordingly, as applicants assert that Claim 11 is in condition for allowance, applicants further assert that dependent Claims 12-17 are also in condition for allowance, and request that the 35 U.S.C. § 102(b) rejections be withdrawn, and the claims allowed.

#### Claim 25

In regard to independent Claim 25, applicants submit that Cheng fails to disclose each and every element of Claim 25. In particular, applicants submit that Cheng fails to disclose:

wherein the first and second child update services nodes are organized in a hierarchy of update service nodes originating with a root update service node, and wherein the second child update service node is a parent update service node to the first child update service node.

As discussed above, applicants submit that Cheng fails to disclose that client computers, which the Office Action equates to the update service nodes of the present application, are organized into a hierarchy of client computers. Rather, as illustrated in Fig. 1 of Cheng, the

client computers are configured as peers and not in a hierarchy under a dissimilar service provider computer system.

For the reasons set forth above, applicants submit that Cheng fails to disclose each element of independent Claim 25. Accordingly, applicants submit that Claim 25 is now in condition for allowance and request that the 35 U.S.C. §102(b) rejection of this claim be withdrawn and the claim allowed.

#### Claims 26-28

Claims 26-28 depend from independent Claim 25. Accordingly, as applicants assert that Claim 25 is in condition for allowance, applicants further assert that dependent Claims 26-28 are also in condition for allowance, and request that the 35 U.S.C. § 102(b) rejections be withdrawn, and the claims allowed.

#### Claim 29

Claim 29 recites similar elements to those found in Claim 25. In particular, Claim 29 recites:

wherein the first and second child update services nodes are organized in a hierarchy of update service nodes originating with a root update service node, and wherein the second child update service node is a parent update service node to the first child update service node.

Accordingly, for the same reasons as set forth above in regard to Claim 25, applicants submit that Claim 29 is also in condition for allowance, and request that the 35 U.S.C. §102(b) rejection be withdrawn and the claim allowed.

#### CONCLUSION

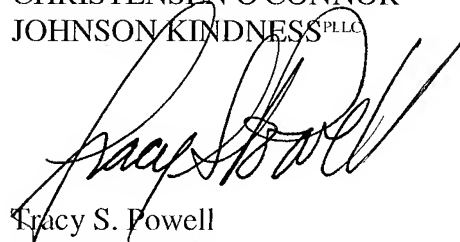
In view of the foregoing amendments and remarks, applicants respectfully submit that this application is in condition for allowance. Consequently, early and favorable action passing

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the application to issue is respectfully solicited. The Examiner is invited to contact the applicants' representative at the number below in order to resolve any issues that may facilitate prosecution of this application.

Respectfully submitted,

CHRISTENSEN O'CONNOR  
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A handwritten signature in black ink, appearing to read "Tracy S. Powell", is written over the firm name.

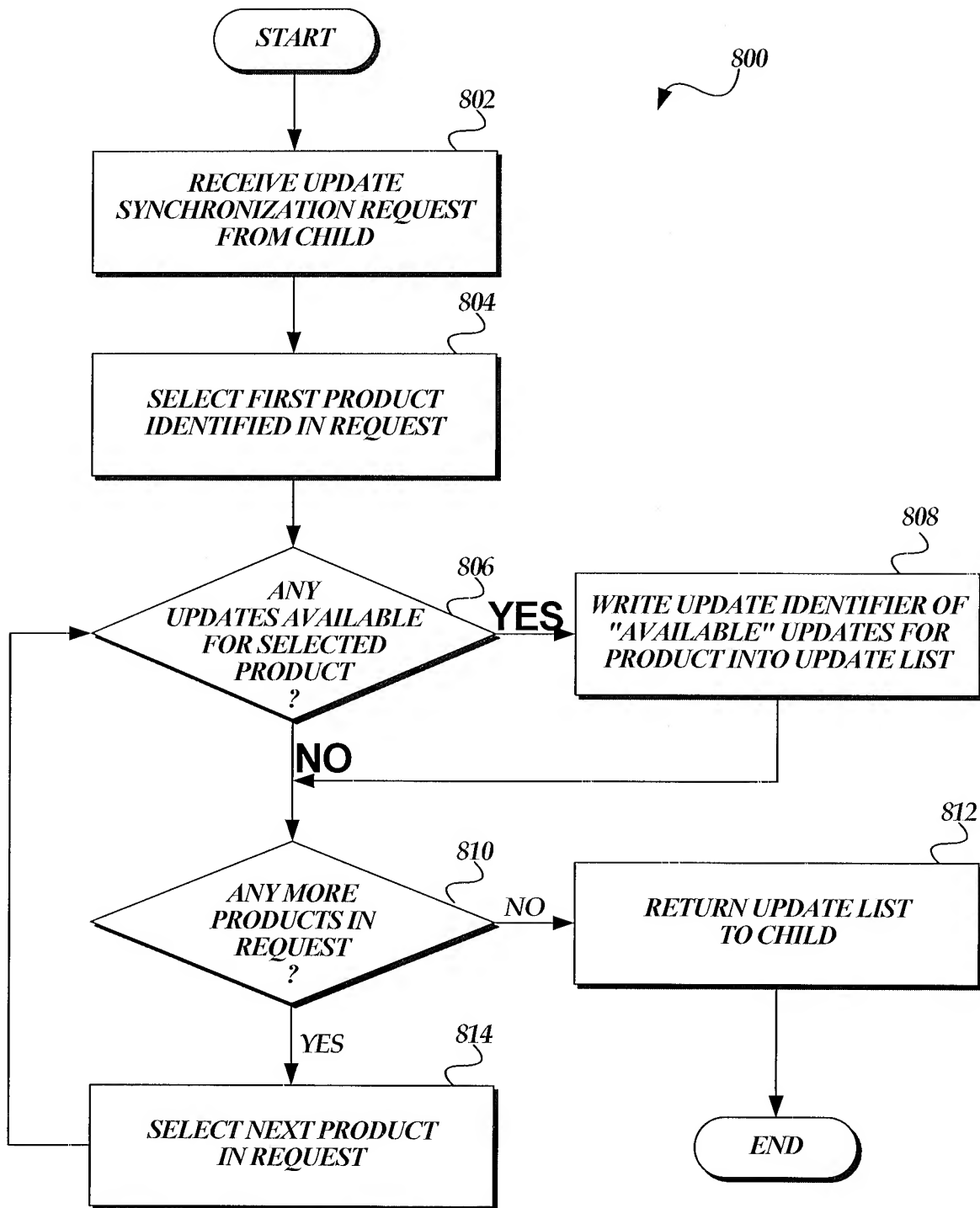
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**Fig.8.**